UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,972	04/25/2001	Thanabalan Paul	67742-14	6201

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EXAMINER
PATEL, NIKETA I

ART UNIT	PAPER NUMBER
2181	

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 June 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-12* is/are allowed.

6)☒ Claim(s) *13-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

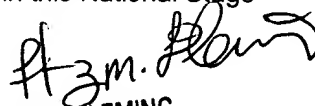8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>03 January 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

FRITZ FLEMING
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100
8/17/2006

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☒ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. *20060816* .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Koistinen et al.

U.S. Patent Number: 6,154,778 (hereinafter referred to as "*Koistinen*".)

Referring to claims 19, *Koistinen* teaches a generic quality of service architecture

comprising: a client QoS negotiator in communication with a client application [see figure 7,

elements 66, 58, 42 and column 6, lines 23-57, client agent]; a server QoS negotiator in

communication with a server application [see figure 7, elements 52, 46, 40 and column 6, lines

23-57, server agent]; a generic QoS protocol accessible by the client QoS negotiator and the

server QoS negotiator [see column 4, lines 25-36, generic negotiation protocol]; and a generic

QoS API for configuring, monitoring and maintaining the client QoS negotiator, the server QoS

negotiator, and the generic QoS protocol [see figure 7, elements 62, 64 and column 11, lines 50-

64, QoS specification selection program and expected utility calculation program.]

Referring to claim 20, *Koistinen* teaches wherein said client QoS negotiator is disposed

above and communicates with a client socket layer [see column 6, lines 23-57 and column 9,

lines 60-67 and column 10, lines 1-12 and column 11, lines 37-67 and column 12, lines 1-14 and

column 14, lines 55-67 and column 15, lines 1-20.]

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koistinen et

al. U.S. Patent Number: 6,154,778 (hereinafter referred to as *"Koistinen"*) and further in view of

Bullard et al. U.S. Patent No.: 6,405,251 B1 (hereinafter *"Bullard"*.)

Referring to claim 13, *Koistinen* teaches a generic quality of service protocol

comprising: a client information storage unit [see column 6, lines 23-57 and column 9, lines 60-

67 and column 10, lines 1-12 and column 11, lines 37-67 and column 12, lines 1-14 and column

14, lines 55-67 and column 15, lines 1-20]; a proxy information storage unit, an application

profile information storage unit, means for storing transport QoS profile information [see column

6, lines 23-57 and column 9, lines 60-67 and column 10, lines 1-12 and column 11, lines 37-67

and column 12, lines 1-14 and column 14, lines 55-67 and column 15, lines 1-20]; means for

storing per-protocol QoS profile information [see column 6, lines 23-57 and column 9, lines 60-

67 and column 10, lines 1-12 and column 11, lines 37-67 and column 12, lines 1-14 and column

14, lines 55-67 and column 15, lines 1-20]; and means for storing QoS map order information

[see column 6, lines 23-57 and column 9, lines 60-67 and column 10, lines 1-12 and column 11,

lines 37-67 and column 12, lines 1-14 and column 14, lines 55-67 and column 15, lines 1-20.]

Koistinen does not set forth the limitation of an ICMP header for transmitting the protocol as an

out-of-band message however *Bullard* teaches this limitation [see *Bullard* column 26, lines 21-

40 and column 25, lines 10-25, 'ICMP'] to report various types of errors such as out-of-band.

It would have been obvious to one of ordinary skill in the art at the time of applicant's

invention that it was old and well known in the computer art to get the advantage of reporting

errors such as out-of-band to other peer machines by using the Internet Control Message Protocol

header. It would have been obvious to one of ordinary skill in the art at the time of applicant's

invention to include ICMP header to get this advantage.

Referring to claim 14, *Koistinen* as modified in claim 13 above teaches, the protocol

wherein said client information storage unit further comprises: means for storing operating

system type information [see column 6, lines 23-57 and column 9, lines 60-67 and column 10,

lines 1-12 and column 11, lines 37-67 and column 12, lines 1-14 and column 14, lines 55-67 and

column 15, lines 1-20]; means for storing workstation configuration information; means for

storing processor architecture information and means for storing network architecture

information [see column 6, lines 23-57 and column 9, lines 60-67 and column 10, lines 1-12 and

column 11, lines 37-67 and column 12, lines 1-14 and column 14, lines 55-67 and column 15,

lines 1-20.]

Referring to claim 15, *Koistinen* as modified in claim 13 above teaches, the protocol

wherein said proxy information storage unit further comprises: means for storing proxy IP

addresses; and means for storing proxy port numbers [see column 6, lines 23-57 and column 9,

lines 60-67 and column 10, lines 1-12 and column 11, lines 37-67 and column 12, lines 1-14 and

column 14, lines 55-67 and column 15, lines 1-20.]

Referring to claim 16, *Koistinen* as modified in claim 13 above teaches, the protocol wherein said application profile information storage unit further comprises: means for storing application source information; means for storing application class information; means for storing application bandwidth requirements; means for storing data transfer rates; and means for storing response times [see column 6, lines 23-57 and column 9, lines 60-67 and column 10, lines 1-12 and column 11, lines 37-67 and column 12, lines 1-14 and column 14, lines 55-67 and column 15, lines 1-20.]

Referring to claim 17, *Koistinen* as modified in claim 13 above teaches, the protocol wherein said means for storing transport QoS profile information further comprises: means for storing protocol available client protocols; and means for storing server protocol grants [see column 6, lines 23-57 and column 9, lines 60-67 and column 10, lines 1-12 and column 11, lines 37-67 and column 12, lines 1-14 and column 14, lines 55-67 and column 15, lines 1-20.]

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koistinen et al. U.S. Patent Number: 6,154,778 (hereinafter referred to as *"Koistinen"*) as applied to claim 13 above, and further in view of Arunachalam et al. U.S. Patent Number: 6,631,122 (hereinafter referred to as *"Arunachalam"*.)

Referring to claim 18, *Koistinen* as modified in claim 13 above teaches means for storing per-protocol QoS profile information [see column 6, lines 23-57 and column 9, lines 60-67 and column 10, lines 1-12 and column 11, lines 37-67 and column 12, lines 1-14 and column 14, lines 55-67 and column 15, lines 1-20.] *Koistinen* does not set forth the limitation of the protocol wherein said means for storing per-protocol QoS profile information further comprises:

means for storing ATM connection information; and means for storing ATM address

information, however *Arunachalam* teaches these limitations [see column 3 – lines 50-67] in

order to allow a client to communicate with a server via asynchronous transfer mode services.

One of ordinary skill in the art at the time of applicant's invention would have clearly

recognized that it is quite advantageous for the system of *Koistinen* to be able to store ATM

connection information in order to allow a client to communicate with a server via asynchronous

transfer mode services. It is for this reason that one of ordinary skill in the art would have been

motivated to implement means to store ATM connection information in order to allow a client to

communicate with a server via asynchronous transfer mode services.

Claims 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koistinen et

al. U.S. Patent Number: 6,154,778 (hereinafter referred to as "*Koistinen*") as applied to claim 19

above, and further in view of Arunachalam et al. U.S. Patent Number: 6,631,122 (hereinafter

referred to as "*Arunachalam*".)

Referring to claims 21, 23, *Koistinen* teaches providing quality of service for

applications in multiple transport protocol environments [see column 6, lines 23-57 and column

9, lines 60-67 and column 10, lines 1-12 and column 11, lines 37-67 and column 12, lines 1-14

and column 14, lines 55-67 and column 15, lines 1-20.] *Koistinen* does not set forth the

limitation of the architecture wherein said client socket layer and the server socket layer further

comprises ATM, RSVP, TCP/UDP, and IPv6 protocols, however *Arunachalam* teaches these

limitations [see *Arunachalam* column 12 – lines 59-67, column 13 – lines 1-9 and column 6 –

lines 13-20] in order to allow a client to use various types of communication protocols to communicate with a server.

One of ordinary skill in the art at the time of applicant's invention would have clearly recognized that it is quite advantageous for the system of *Koistinen* to have socket layer comprising ATM, RSVP, TCP/UDP, and IPv6 protocols in order to allow a client to use various types of communication protocols to communicate with a server. It is for this reason that one of ordinary skill in the art would have been motivated to have socket layer comprising ATM, RSVP, TCP/UDP, and IPv6 protocols in order to allow a client to use various types of communication protocols to communicate with a server.

Referring to claim 22, *Koistinen* as modified in claim 21 above teaches the architecture wherein said server QoS negotiator is disposed above and communicates with a server socket layer [see column 6, lines 23-57 and column 9, lines 60-67 and column 10, lines 1-12 and column 11, lines 37-67 and column 12, lines 1-14 and column 14, lines 55-67 and column 15, lines 1-20.]

Referring to claim 24, *Koistinen* as modified in claim 21 above teaches the architecture wherein the client QoS negotiator negotiates a QoS profile with the server QoS negotiator by exchanging messages and sharing information through the generic QoS protocol [see column 6, lines 23-57 and column 9, lines 60-67 and column 10, lines 1-12 and column 11, lines 37-67 and column 12, lines 1-14 and column 14, lines 55-67 and column 15, lines 1-20.]

Referring to claim 25, *Koistinen* as modified in claim 21 above teaches the architecture wherein the client QoS negotiator sets local bandwidth, buffer, and cache parameters for the client application [see column 6, lines 23-57 and column 9, lines 60-67 and column 10, lines 1-

12 and column 11, lines 37-67 and column 12, lines 1-14 and column 14, lines 55-67 and column 15, lines 1-20.]

Referring to claim 26, *Koistinen* as modified in claim 21 above teaches the architecture wherein the server QoS negotiator sets local bandwidth, buffer, and cache parameters for the server application [see column 6, lines 23-57 and column 9, lines 60-67 and column 10, lines 1-12 and column 11, lines 37-67 and column 12, lines 1-14 and column 14, lines 55-67 and column 15, lines 1-20.]

Referring to claim 27, *Koistinen* as modified in claim 21 above teaches the architecture wherein the client QoS negotiator and the server QoS negotiator connect the client application to the server application based upon the QoS profile [see column 6, lines 23-57 and column 9, lines 60-67 and column 10, lines 1-12 and column 11, lines 37-67 and column 12, lines 1-14 and column 14, lines 55-67 and column 15, lines 1-20.]

Response to Arguments

Applicant's arguments, see pages 10-11, filed 06/01/2006, with respect to claims 1-12 have been fully considered and are persuasive. The rejection of claims 1-12 has been withdrawn. However, the arguments with respect to claims 13-27 are not persuasive. The applicant argues that *Koistinen* does not teach 1) does not describe a generic protocol that operates independent of processor architectures 2) storing transport QoS profile information, a proxy information storage unit, means for storing transport QoS profile information, an application profile information storage unit, at pages 12-13 of the 'remark' section. The examiner respectfully disagrees with these arguments.

As per the first argument, *Koistinen* describe a generic protocol that operates independent of processor architectures [see column 4, lines 25-36, 'generic negotiation protocol'.]

As per the second argument, *Koistinen* teaches storing transport QoS profile information, means for storing transport QoS profile information, a proxy information storage unit, an application profile information storage unit [see column 10, lines 53-61, 'store and transport QoS specification' and column 2, lines 67, column 3, lines 1-9, 'QoS specification include dimensions which represent qualitative or quantitative attributes of a category, for example dimensions of availability and means-time-to-failure', column 3, lines 51-54, QoS specification includes a server promise to provide a service at certain QoS levels and column 4, lines 25-36 and column 9, lines 5-9, the profile utility function.]

Allowable Subject Matter

Claims 1-12 are allowed.

The following is an examiner's statement of reasons for allowance: see applicant's arguments field on 06/01/2006, pages 10-11, with respect to claims 1, 5 and 10.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Niketa I. Patel whose telephone number is (571) 272 4156. The

examiner can normally be reached on M-F 8:00 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Fritz Fleming can be reached on (571) 272 4145. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NP
08/16/2006

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